

105-EMD-001

ECS Maintenance and Development Project

Property Management Plan for the EMD Project

Final

November 2003

Raytheon Company
Upper Marlboro, Maryland

Property Management Plan for the EMD Project

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Prepared Under Contract NAS5-03098
CDRL Item #005

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Preface

This document is a formal contract deliverable. It requires Government review and approval within 20 business days. Changes to this document will be made by document change notice (DCN) or by complete revision.

Any questions should be addressed to:

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Abstract

This Property Management Plan for the EMD Project addresses management of EMD Contractor-acquired commercial off-the-shelf (COTS) hardware and software and government-furnished property (GFP) until NASA accepts it. This also includes management of Contractor-acquired property and GFP in which the EMD Contractor has direct maintenance and operations (M&O) responsibility.

Keywords: COTS, MWO, GFP, DCMAO, EDS, ILS, ILM database, Property Administration, Purchase Order, Bill of Material, Inventory, Material, EIN, Maintenance Work Order, GSFC Form 20-4, DD Form 250, Property, Equipment

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Abbreviations and Acronyms

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1. Introduction

1.1 Identification

This plan is prepared in compliance with Contract Data Requirements List (CDRL) item 005 as required by the ECS Maintenance and Development (EMD) contract NAS5-03098.

1.2 Scope

This plan addresses management of EMD Contractor-acquired commercial off-the-shelf (COTS) hardware and software and Government-furnished property (GFP) until the Contracting Officer (CO) or the Contracting Officer's Technical Representative (COTR) accepts it.

1.3 Purpose

The purpose of this document is to identify responsibilities and procedures for the management and execution of EMD property management functions. When approved by the Defense Contract Management Agency (DCMA), this document will establish the processes, policies, and procedures to be followed by the EMD contractor in managing, accounting for, and reporting contractor-acquired COTS hardware, software, and GFP.

The objectives of property management are to accomplish the following:

- Maintain control of EMD property from time of receipt until relief from accountability through approved means.
- Maintain accountability of EMD property through the establishment and maintenance of accountable records that provide accurate description, location, and condition status of the property.

1.4 Status and Schedule

This is the original edition of this document. It was originated in October 2003, submitted to DCMA in November 2003 and submitted to ESDIS in December 2003.

1.5 Organization

The remainder of this document is organized as follows:

- Section 2: Identifies related documents for requirements or documents referenced in this plan.
- Section 3: Identifies the organization and its responsibilities for the management and execution of EMD property management functions.

Section 4: Describes the processes and procedures for the execution of property management functions

A list of abbreviations and acronyms appears at the end of this document.

2. Related Documents

2.1 Parent Documents

Not Applicable

2.2 Applicable Documents

The following documents are either referenced in this document, are directly applicable, or contain policies or other directives that are binding upon the content of this volume:

NAS5-03098	EMD Contract, Clauses: E5, 6, and 10, F2 and 6, G5, 6, 15, 16, 17, 18,19, and 21
813-PL-028	EMD Statement of Work
109-EMD-001	Procurement Management Plan for EMD
NPG 4200.1E	Equipment Management Manual
108-EMD-001	EMD Program Management Plan

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3. Property Organization and Responsibilities

3.1 Organization

Raytheon is solely responsible to the Government for the accountability, control, and reporting of contractor-acquired property and Government furnished property (GFP) during the execution of the EMD contract. As such, Raytheon will manage EMD property management functions performed by subcontractors.

Property Custodians (PC) and the EMD Property Administrator (PA) will control EMD property located at the following sites.

- GES DAAC, Goddard Space Flight Center (GSFC), Greenbelt, MD
- Land Processing DAAC (LP DAAC), Earth Resources Observation Systems (EROS) Data Center (EDC), Sioux Falls, SD
- Atmospheric Sciences Data Center (ASDC DAAC), Langley Research Center (LaRC), Hampton, VA
- National Snow and Ice Data Center, University of Colorado, Boulder, CO
- EMD Development Facility (EDF), Upper Marlboro, MD

Additional locations may be incorporated into the EMD as operational needs warrant. The EMD organizations will share facilities belonging to the institutional hosts. Host facilities will support property management operations by providing space for maintenance, parts, tools, material and consumable storage, and personnel and will provide external communications.

Figure 3-1, “Property Management Roles,” identifies the EMD personnel involved in managing and executing EMD property functions.

The following section addresses the property management roles and responsibilities of EMD Project personnel.

3.2 Responsibilities

The Raytheon EMD Contracts Manager is responsible for subcontracts management and reporting the following to the Government PA (GPA): loss, damage, and or destruction of contractor-acquired property and GFP, revisions of the EMD property management procedures, and submission of an annual NASA Form 1018.

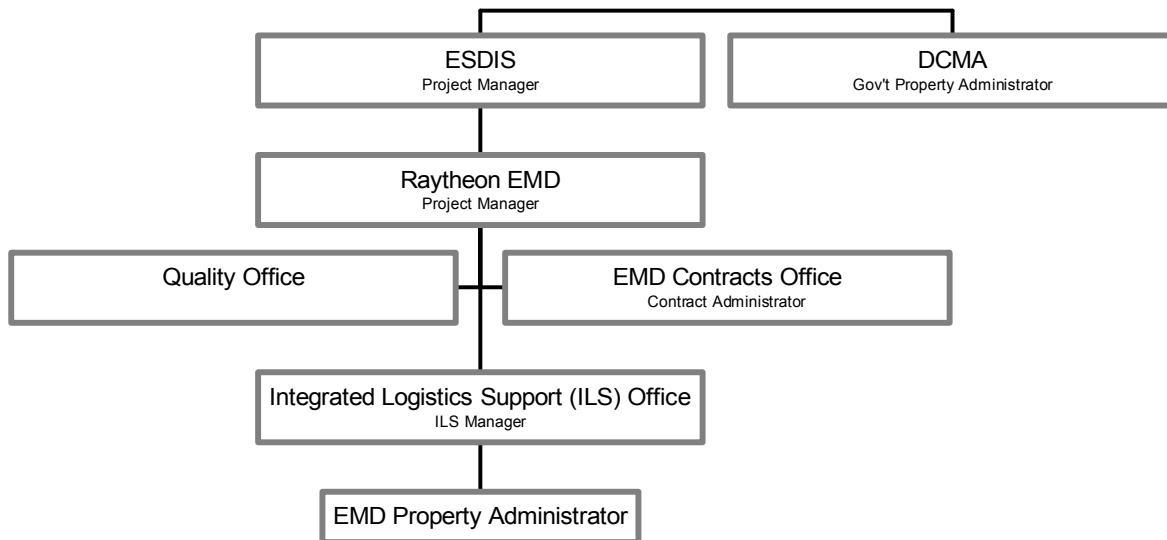


Figure 3-1. Property Management Roles

The Integrated Logistics Support (ILS) Manager, under the general direction of the COTS HW and SW Maintenance Manager and the Raytheon EMD Contracts Manager, is responsible for the execution of the EMD property management program. This includes development of policies and procedures for EMD-wide property administration, management of property administration resources, and property accountability and reporting.

The Defense Contract Management Agency (DCMA) is the Government PA (GPA), responsible for oversight of EMD property administration. As such, DCMA will review and approve this plan and the processes, procedures, and systems used in the administration of EMD property.

3.2.1 Property Administration

The EMD PA within the ILS Office at the EDF is responsible for the establishment and maintenance of EMD property records using the Inventory and Logistics Management (ILM) database. The EMD PA is the focal point regarding the execution of property administration functions EMD-wide and for maintaining control and accountability of contractor-acquired and GFP property at the EDF. The EMD PA coordinates and monitors property actions of site PC

The Property Custodian designated at each EMD Distributed Active Archive Center (DAAC) performs property administration for the site's material. Site PC are responsible for the receipt, inspection, storage, issue, inventory, recording, accounting, and reporting of EMD property at EMD sites. PC will follow the policies and procedures approved in this Plan, EMD Project Instructions, and EMD-approved local procedures developed between site PC and local site property control offices. Locally developed procedures will be reviewed by the ILS Manager to ensure that they are in conformance with provisions of this Plan, EMD Project Instructions, procedures accepted by Government PA, and are conducive to the maintenance of control and accountability of EMD property at all sites.

The EMD Raytheon DAAC Lead, in coordination with the government DAAC manager and site support contractor will designate site PC in writing. At locations where Raytheon is not the site support contractor a Raytheon engineer will be assigned to monitor the actions of the site support property custodian to ensure that procedures outlined in this document are followed. Prior to the transfer of responsibility from one Property Custodian to another, the ILS Manager will verify that the incoming Property Custodian has been adequately prepared to assume his/her responsibilities, that a site inventory is performed and the results recorded, and that accountable records are current.

3.2.2 Procurement Office

The purchase of EMD COTS material, software, repair parts, and consumables is the responsibility of the EMD COTS Procurement Office. The Procurement Office is operated by Electronic Data Systems (EDS), an EMD subcontractor, under the direction of the EMD Business Operations Office and the Contracts Manager. Once COTS property is acquired, control and accountability of the property (including transfers between EMD sites or to other contracts) is the responsibility of the ILS Manager, the EMD PA, and DAAC PC.

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4. Property Management Process

This section describes the processes to be performed in the execution of the EMD property management functions. The property management process is depicted in Figure 4-1. The process depicted here is described in detail in the following pages.

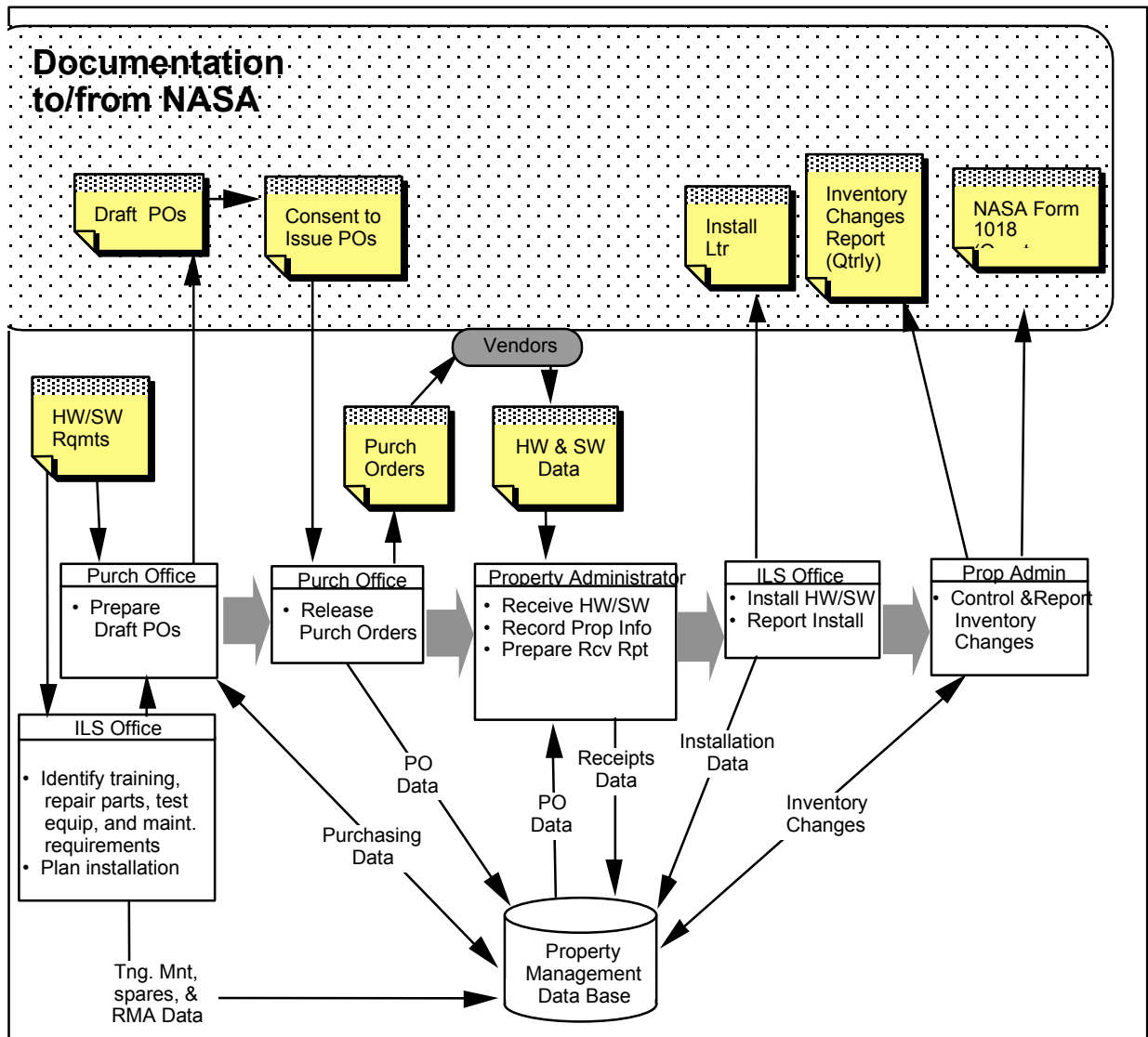


Figure 4-1. Property Management Process Flow

4.1 Property Management

Raytheon will maintain an adequate property control system for government property that will meet the guidelines of FAR 45.5. The Raytheon EMD Project Manager, having overall responsibility and authority for the EMD contract, is considered "managerial personnel" with regards to the FAR.

4.2 Acquisition

EMD COTS Procurement Office will obtain the Contracting Officer's written consent before placing any subcontract for which advanced notification is required. EMD contractor requests for Government-owned equipment must obtain the Contracting Officer's consent. The ESDIS Contracting Officer and GSFC Code 235.1 have determined that all hardware, software, and consumables purchased for EMD by the EMD COTS Procurement Office is material. Therefore screening through the NASA Equipment Management System (NEMS) system is not required.

Prior to purchasing EMD material or facilities (including plant equipment) the EMD COTS Procurement Office will submit a consent package for review, through the Raytheon EMD Contracts Manager, to the NASA EMD Contracting Officer (CO) or Hardware Planner for review. A consent package consists of a signed configuration change request (CCR), bill of material (BOM), and EDS purchase order (PO).

The NASA EMD CO or Hardware Planner will return the consent package with a signed approval letter to the EMD COTS Procurement Office to purchase the item(s). Upon the receipt of the NASA CO's consent to purchase, EMD COTS Procurement Office will purchase the material using the PO and provide the EMD PA a copy of the returned PO and a detailed BOM. The EMD PA will use these documents to monitor material due in, reconcile receipts against what is ordered, and configure the material when received.

When a BOM identifies material to be used as a "trade in" the following procedures will be used. The COTS Procurement Office will prepare NASA form 20-56A and submit it as a part of the consent procurement package to the EMD CO and or Hardware Manager. When approval is received to purchase from the EMD CO or Hardware Manager the EMD COTS Procurement Office will initiate PO based on the approval package. The NASA CO or Hardware Manager will forward the NASA Form 20-56A to the appropriate GSFC property office. Disposition/approval will be provided to the NASA CO or Hardware Manager. If the disposition instructions require that the "trade in" HW be sent another NASA organization, this information will be passed to the EMD PA, EMD COTS Procurement Manager, and EMD ILS Manager. The ILS manager will inform EMD hardware engineering if trade in items are to be shipped to other NASA organizations. After EMD hardware engineering releases the HW the EMD Property Custodian will accomplish the transfer.

4.3 Receiving

All Contractor-acquired property, vendor-loaned property, and GFP entering an EMD facility (i.e., the EDF or an EMD site) will be received and processed by the EMD PA or site Property Custodian prior to its use. The following is a description of the process to be followed in the

receipt and processing of EMD property. Procedures for receiving vendor-loaned property will be described in separate EMD project instructions.

4.3.1 Receiving Inspection

Upon arrival of EMD material or software, the EMD PA will perform a receiving inspection against the PO to verify correctness of delivery, quantity received, and to determine if there is evidence of damage during shipment. The PA will complete a Loading Dock Checklist verifying the number of pieces received against the shipper's bill of lading and the condition of the material. The following will be noted on the checklist: carrier name and bill of lading number, date and number of pieces received, description of discrepancies noted, and signature of person receiving the items. On the carrier's copy of the shipping document, the receiving individual will note any damage to the shipment and sign the Loading Dock Checklist, thereby acknowledging receipt of the shipment. The signature of the carrier's representative will be obtained when container shortages, damages, and other transit-related discrepancies are identified.

Property received will be promptly moved under the direction of the PA from the loading dock to a controlled inventory area for unpacking inspection, detailed component level inventory, and preparation of an Inventory Worksheet. Items received will be reconciled against purchase orders, transfer documents (e.g. GSFC Form 20-4), packing lists, or related documents to ensure accountability for all items, attachments, and accessories. Item identification, configuration, and quantity will be matched against the vendor's packing list, the purchase order, and the detailed configuration list (supplied by the COTS Procurement Office). For GFP having a NASA equipment control number (ECN), the ECN, serial and model numbers, and any other appropriate marking will be noted on the Inventory Worksheet for entry into the property record.

Normally EMD property will be received at the EDF, however in extraordinary circumstances HW may be shipped directly to a DAAC. In most cases the EMD PA or an EMD engineer will travel to the DAAC to perform the receiving operation. However in cases where travel is not possible the site Property Custodian will follow the instructions above. In addition the site Property Custodian will send a copy of the inventory worksheet and shipping document will be forwarded electronically (i.e. fax) to the EMD PA within a day of receipt of the shipment (fax number is (301) 925-0741. The original inventory worksheet will be attached to the shipping documents and retained in the site's property files as a permanent record of the property received. Such documents will be retained until accountability is transferred to the Government.

The inventory worksheet is used by the EMD PA to build the inventory records in the Inventory, Logistics, and Maintenance (ILM) database, which contains the master records of EMD property. The site Property Custodian will notify the EMD PA of EIN tag changes via the EMD Move Change form or Maintenance Work Order (MWO). Changes to property records caused by maintenance actions will be reported via the MWO process outlined in the EMD 611 series documents. When change documents are received the EMD PA will update ILM.

Received property will be secured and protected from electrostatic discharge (ESD) during movement, storage, inspection, inventory, during assembly, test and issue. ESD prevention and control procedures specified in EMD Project Instructions will be followed. Access to the property storage areas will be controlled at all times to prevent unauthorized entry.

4.3.2 Receipt Processing

The Receiving Process Checklist is attached to the bill of lading and filed by the PA as "Purchase Orders Received/Complete" or, in the case of an incomplete shipment, filed as "Purchase Orders Pending/Incomplete." Items received are reconciled against transfer documents, purchase orders, packing lists and related documentation to ensure accountability for all items purchased or requested. Discrepancies will be annotated on the Purchase Order and a COTS Non-Conforming Product Report will be completed and forwarded to the COTS Procurement Office for resolution. Property records for EMD ILM will be recorded in the property database as quickly as possible but not later than 5 business days of initial receipt of the property.

For incomplete shipments, receiving personnel will make a copy of the PO, annotate the missing items, and return a copy of the PO to the COTS Procurement Office. The COTS Procurement Office will contact the vendor to obtain shipment information on the missing items. Misdirected or other discrepant property will be segregated and controlled pending disposition instructions from the COTS Procurement Office.

Shipping discrepancies (other than incomplete shipments) are documented and given to the COTS Procurement Office for vendor notification and resolution. Applicable manufacturer model numbers, part numbers, and serial numbers are recorded on the COTS Non-Conforming Product Report for use in establishing a non-conforming property record. Discrepant material will not normally be given to engineering for test or installation. The EMD COTS HW/SW Maintenance Manager will notify the EMD Property Custodian in writing if discrepant material is to be released to the engineering function.

4.3.3 Receipt Reporting

The receipt reporting requirements clauses stated in Sections G.5 and G.6 of the EMD contract will be followed upon receipt of further direction from the Government, as they apply to contractor acquired property. When received from NASA, the ILS Office will provide direction to EMD sites.

The DD 250, "Material Inspection and Receiving Report," will be prepared at contract closeout at the direction of the EMD Contracting Officer.

4.4 Identification

EMD GFP received as a part of contract start up was provided to Raytheon based on the documentation Raytheon supplied to ESDIS as a part of the ECS contract closeout. The ESDIS Contracting Officer determined the baseline for EMD property would consist of the HW identified in the DD-250 closeout package. Because Raytheon is the incumbent contractor the Contracting Officer determined that ECS property tags did not need to be removed and replaced by EMD property tags. Therefore EMD property received, as GFP at contract initiation will continue to have ECS property tags affixed. To distinguish the initial set of EMD GFP, from later procurement items, it will be identified in the ILM database as "EMD_082003." In addition any residual ECS material received after 1 August 2003 (contract start date) will be tagged with

ECS property tags. EMD property tags will be used effective with the first receipts for material that is purchased with EMD dollars. Therefore EMD property will have either an ECS property tag or an EMD property tag. To ensure that the GFP list in the contract is kept as current as possible, at the least cost to the government, the ESDIS Contracting Officer determined that the EMD contractor will provide a quarterly update of all EMD property in the possession of the EMD contractor, to the Contracting officer. The quarterly list will become the new EMD baseline GFP List and will be valid until the receipt of the next quarter list.

EMD property (i.e., contractor-acquired and GFP) will be tagged with EMD property tags. The PA will apply an EMD tag immediately after property is received and unpacked. EMD property tags are shown at Figure 4-2. Bar coded EMD property tags (on left below) are 5/8 by 1 13/16 inches and imprinted in black on a silver background displaying "Property of NASA/GSFC NAS5-03098." These tags contain a bar code with human-readable interpretation of the contractor-assigned equipment identification number (EIN). Property tags will be placed on the property in an area so that they are visible and easily accessible. Vendor-loaned Raytheon property will not be tagged with EMD property tags. Vendor loaned material will be marked with the following information; vendor, date of loan, date due back to vendor and PO number. This information will be written on "masking tape affixed on the front of the loaned HW.

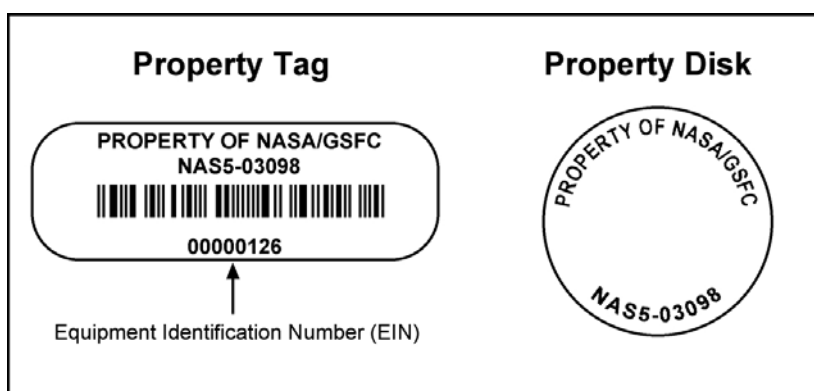


Figure 4-2. EMD Property Tags

Components that are a part of an end item of EMD hardware will not be assigned an EIN tag. These items will be controlled with "C" numbers automatically generated by the ILM system as a part of the receiving process. The following data will be entered into ILM, for C numbered hardware items; manufacturer, description, model/version, serial number (if assigned), stock location, condition code, and quantity. Because software media and documentation are not considered property it will not be assigned EIN tag. It will be controlled as an inventory item. The following data will be entered into ILM for inventory items; manufacturer, description, model/version, serial number (if assigned), stock location, condition code, and quantity. The round property disk shown on the right above is applied to media, documents, and non-property items of GFP and contractor-acquired EMD property.

Property tags of GFP containing a NASA equipment control number (ECN) will not be removed. At the time of receipt of such property, the PA will affix an EMD property tag with EIN next to

the government tag. The NASA ECN will be recorded in the property record and cross-referenced to the EIN.

Prior to disposing of EMD property (or prior to returning it to the Government), EMD property tags will be removed.

4.5 Records

The EMD PA at the EMD Upper Marlboro, MD facility will maintain the official accountable records for Contractor-acquired property and GFP accountable to the EMD Project under contract NAS5-03098. These records are available for examination by Government PAs upon request.

This section describes how EMD property records are established and maintained to account for and control Government property. EMD property records and procedures will conform to the FAR 45.5.

4.5.1 Property Management System

The EMD Project will use a Remedy based database management system to support the property management, control, and reporting functions for Contractor-acquired, GFP, and vendor-loaned material. Property records will be created and maintained in this system and contain, the following information:

- Purchase Order Number
- Dates received and installed
- Item description, model number, and serial number
- Manufacturer
- Cost
- Location of property
- Contractor Equipment Identification Number (EIN)
- Government Equipment Control Number (ECN) for GFP received after 1 August 2003.
- GSFC Form 20-4 Control Number (for property transferred to/from the contract).
- Last inventory date
- Disposition date

Site PC will report property actions as quickly as possible but no later than 2 business days after property changes. Examples of changes include the following; receipt and/or installation of new property, relocations, completion of model/version changes, dispositions, changes in operational status of the property, and component configuration changes made because of maintenance actions.

The EMD PA will maintain support documentation used to post entries to the ILM database. This documentation provides complete, current, and auditable records to support entries into ILM. This documentation will generally be kept in the PO file maintained by the PA. Examples of documents used for posting changes to property records include the following:

- **CCR Package** – Approved copy of CCR, BOM, and PO which are forwarded to the NASA Contracting Officer or Hardware Planner for his/her approval to purchase.
- **EDS Purchase Order** - Used for the purchase of COTS property, software, and material. Purchase orders are used to track material due in and to verify that items received are the same as those ordered. Discrepant receipts are noted and forwarded to the COTS Procurement Office to resolve.
- **Bill of Materials** - Created by the systems engineers and the COTS Procurement Office to verify that all components that should accompany purchased items have been received.
- **Loading Dock Checklist**- Used to record the physical condition of the property received, quantities received, shipping data, date received, and the name of the person who received and inspected the property.
- **Inventory Report** - Used by the PA to verify that an inventory has been conducted and to list any discrepancies noted during the inventory. Report will be signed and dated by the EMD PA.
- **Installation Receipt Report** - Used by the EMD PA to obtain acknowledgment of receipt by the user of receipt and installation of property at the EDF or DAACs.
- **Maintenance Work Order** - Used to record maintenance actions and relocation requests and resultant property changes (e.g., serial/model changes and component replacements) from maintenance actions on EMD property.
- **COTS Non-Conforming Product Report** – Used to record products that arrive at a site that are not in compliance with the PO or other accompanying information or that are not properly functioning at the time of assembly, burn-in, or installation.
- **Receiving Process Checklist** – Used by PAs and system engineers to ensure that the receiving, inventory, burn-in and reporting processes were conducted properly.
- **NASA Form 1018 -- NASA Property in the Custody of Contractors**– Submitted by the ILS office on a quarterly basis to report the value of property in the possession of the EMD contractor.
- **Inventory Worksheet** – Used by PAs to record data about property that has been received and assigned parent and part EIN numbers.
- **GFSC Form 20-4 -- Transfer/Shipping Request**– Used to document the acceptance or transfer of NASA Government property.
- **DD Form 250 -- Material Inspection and Receiving Report** – Used to deliver EMD property to NASA.

- **Move Change Form** – A form that may be used by site PC to report location changes, new EIN tag numbers or other property actions when using an MWO is not appropriate.

The EMD PA will also manage consumable material. For consumable property, property records will include stockage quantities, location and, if applicable, shelf life information. These property records may be either computer or manual records.

4.6 Movement

Prior to shipping property to another site, the EMD PA will notify the receiving site Property Custodian that material is being shipped. . The shipping report will alert the site of the expected shipment date, carrier, shipping document number, estimated weight and cube, number of pieces, shipper, and ship-to address and CCR number if appropriate.

Prior to shipment, a pre-shipment inspection will be performed to verify the following:

- CCR number if appropriate.
- Correct identification of property on packing lists and shipping documents including configurations, serial numbers, number of containers, and ship-to address.
- Adherence to packaging and marking standards.
- Inclusion of appropriately prepared documents with shipping containers.

Generally, EMD property being shipped from vendors and the EDF will be shipped directly to and received by the site Property Custodian. Local policy at some sites may require delivery to a site central receiving point. In such cases, written procedures will be developed between the site Property Custodian and site's central receiving office regarding notification of receipt, documentation required, and provisions for local delivery to the EMD facility. If required the EMD ILS manager and Raytheon site lead will work with site management to resolve any issues caused by EMD shipments.

4.6.1 Intra-site Relocations

Requirements for property relocation at the same site will be processed through the site's Property Custodian to ensure that control and accountability of property is maintained. If required by other procedures, the site Property Custodian will document the relocation request on a CCR and forward the CCR to the appropriate configuration control board (CCB) for approval. Configuration Control Board authorization may be required prior to reconfiguring/moving property or software within a DAAC or the EDF. When the relocation request is approved, and the action is completed, the site Property Custodian will document the change in either an MWO, move change form or an Excel spreadsheet or other suitable form to notify the EMD PA that the material has been relocated. Upon receipt of the move/change notification the EMD PA will update the property records and technical documents, as needed.

4.6.2 Inter-site Relocations

Generally the hardware engineering staff at the EDF will direct inter-site relocations. In these cases the EMD PA will provide the DAAC Property Custodian and engineering staffs complete information to facilitate the transfer. In the rare event that a DAAC determine that material relocation is needed the following will be followed. Requests to relocate property to another EMD site will be forwarded via a configuration change request (CCR) prepared by the requesting organization or EMD COTS hardware engineering. The EMD COTS hardware engineering function is responsible for processing DAAC CCRs through the EMD CCB approval process. When relocation is approved, the EMD PA will notify both the gaining and losing custodian of the pending property movement. The gaining Site Property Custodian will report completion of the relocation to the EMD PA, who will update the property record with the new location and date of the action.

4.6.3 External Transfers

The ESDIS Contracting Officer (CO) must approve in writing any transfers of EMD property outside the EMD contract. Transfers of EMD property to the Government or to other contracts will be documented by the completion of GSFC Form 20-4 or other documentation as directed by the CO.

Further, the CO must authorize in writing relocations of EMD property to sites other than those designated in Section 3.1. Examples of such relocations include relocations of property to a university or to an instrument support team (IST). These authorizations may take the form of a temporary loan or may involve permanent transfer of the property via GSFC Form 20-4 or other document designated by the CO. In either case, the signature of the gaining organization's authorized agent will be obtained and retained as a part of EMD property records.

4.6.4 Off-Site Vendor Repairs

For property returned to a vendor for repair, the applicable Maintenance Work Order (MWO) will be retained in a "pending actions" file until the item is returned. It will identify date of shipment, expected return date, and vendor point of contact. Status code "F" (failure--out for repair) will be entered into the property record. The Site Property Custodian or Local Maintenance Coordinator will remove the ECS/EMD property tag (if the item is tagged) before the item is returned to the repair facility. . Once returned, the date of return will be recorded in the MWO, MWO closed, and serial number and a new EIN tag applied. The property status code in the property record will be changed to reflect status "R" (received/in-stock) or "I"(installed) as appropriate for the property. In the event the vendor replaces the original property because it was not repairable the site Property Custodian or EMD PA as appropriate, will record the new item in the MWO as a replacement for the failed item and close the MWO. The PA will then archive the failed item property record and add the replacement item into the active inventory. The receiving actions described in paragraph 4.3 will be followed for inventory and receipt of the replacement item.

4.7 Storage

EMD property will be stored in clean, orderly, and secure areas conforming to the environmental controls for temperature, humidity, and electrostatic discharge. Access will be limited to authorized personnel only and controlled by the PA. EMD EINs will appear on all contractor acquired and GFP under EMD control to distinguish it from contractor and vendor-loaned property. Material will be inspected to determine serviceability before being stored. Material that is unserviceable will be segregated and disposed of following procedures described in Section 4.14.

Contractor-owned and vendor-loaned property will be segregated from Government-owned property during storage. Site PC and the EMD PA will ensure that storage areas are kept in a clean, orderly manner. Material will be stored on shelves or in bins or drawers, as appropriate, and its storage location entered into the property record. Special storage areas or controls will be provided for items subject to corrosion, humidity, temperature, and shelf life limitation. Such items will be inspected semi-annually.

4.8 Physical Inventories

All EMD property will be inventoried annually. The EMD PA will publish a schedule in January of each year and distribute it to the Site PC. Personnel from the EDF may travel to DAACs to oversee the annual property inventory. EMD personnel responsible for maintaining property records will not assist in the conduct of these inventories. Inventories will be designed to achieve the following objectives:

- Verify that recorded property is still on hand
- Confirm or determine current location and custodial responsibility for property and material
- Identify unrecorded property, which qualifies for control
- Locate or identify missing property
- Identify unused or underutilized property as well as material in need of repair or rehabilitation

Results of site inventories, including the identification of any discrepancies noted, will be reported promptly to the Government PA (GPA). The EMD PA will assist sites in resolving discrepancies. If relief from accountability is granted by the GPA, the EMD PA will make appropriate inventory adjustments to the property database.

After the annual inventory is complete EMD Quality Assurance will validate the effectiveness of the inventory. Such audits will be conducted to verify that property administration procedures are being followed, are effective, and that inventories are being conducted in a manner that results in accurate accountability. The results of this validation will be provided to the EMD ILS manager. The ILS manager will take appropriate actions to resolve issues found by EMD quality personnel. Annual ISO audits can be used to satisfy this requirement, if the ISO audit is within

90 days of inventory completion. Discrepancies noted by ISO auditors will be handled per established QA procedures.

4.9 Reports

4.9.1 Quarterly Reporting

A listing of contractor-acquired property received during the reporting period will be reported within 30 days following each calendar quarter, (i.e., January, April, July and October). Listings will include item description, manufacturer, model, serial number, cost, location, and ECN (if assigned). Reports will be submitted to the CO and the Supply and Equipment Management Office, Code 235.1. Property previously reported on GSFC Form 20-4 or equivalent and GFP will be included in these quarterly reports. This report along with the total list of current property will become the baseline for the EMD GFP for the following quarter.

4.9.2 NASA 1018 Reporting

The ILS Office will prepare NASA Form 1018, "Report of Government-Owned/Contractor-Held Property," quarterly and annually. The annual report will be transmitted to NASA using the NF 1018 Electronic Submission system (NESS). Quarterly reports will be prepared and submitted per NASA instructions and may NASA direct submitted using NESS or other method as. The Raytheon EMD Contracting Officer will be the final releasing authority for all 1018 reports. This report will be prepared using data contained in the property management database. Per NASA direction the report will value property at the "acquisition price" and not EDS purchase cost. Methodology for computing the "acquisition price" is available in the ILS office, the EMD Contracting Office, and the Raytheon Program Control Office. NASA has further directed that the value of EMD custom code be included in the annual 1018. Methodology for computing the value of the custom code is maintained in the Raytheon Program Control Office.

4.10 Consumption

Consumables, expendables, and repair parts will be controlled as inventory items. Consumption of these items will be accounted for by recording all purchases receipts, issues, and maintaining identity of balance on hand and balance on order. Issues will be accounted for by date, quantity, and to whom issued. The ILS Office will establish reorder quantities based on EMD requirements and review these levels semi-annually. Any item having storage limitations (i.e., limited storage life) or requiring a controlled environment will be identified in its property record. Limited storage life items will be issued on a first-in first-out (FIFO) basis. Receipts and issues of Government property will be performed as documented in Section 4.3 of this Plan. The identification of excess property will be reported as described in Section 4.14.2.

4.10.1 Reporting of Loss, Damage, and Destruction of EMD Property

If Government property in the possession of the Contractor is lost, damaged, or destroyed, the EMD PA will notify the Raytheon Contracts Manager, who will notify the Government PA immediately by telephone upon discovery and follow up with a written report as soon as the facts

become known. The report and statement of loss will contain the following factual data as to the circumstances surrounding the loss:

- Contractor's name and contract number
- Description of items lost, damaged, or destroyed
- Cost of property lost, damaged, or destroyed and cost of repairs in instances of damage (if actual costs are not known, reasonable estimates will be given)
- Date, time, and cause of the loss, damage, or destruction
- Actions taken by the Contractor to prevent further loss, damage, or destruction and to prevent repetition of similar incidents
- Other facts or circumstances relevant to the determination of liability and responsibility for repair or replacement
- Statement that no insurance costs or other means of covering loss, damage, or destruction of Government property were charged to the contract, if applicable
- Statement that Raytheon does or does not have insurance to cover to loss and whether or not Raytheon was or will be reimbursed or compensated for loss, damage, or destruction of Government property

4.11 Utilization

All property, either contractor-acquired or furnished by the Government will be used exclusively on authorized contracts. In the event other use can be made of specific property on other Government contracts, a request will be made in writing to the ESDIS Contracting Officer for written approval, either by letter or contract modification prior to use on other contracts.

Only authorized personnel performing functions in support of the EMD Project will use EMD property. PAs will ensure that users of EMD property are aware of the provisions of this Plan, Project Instructions, and local procedures regarding the use, control, reporting, and disposition of EMD property, and that it is used in accordance with EMD contractual requirements.

4.11.1 Control of Pilferable Material

The EMD PA and Site PC will establish special controls for the security and identification of pilferable items. Pilferable items include any of the following: computer components, calculators, cameras, VCRs, tape recorders, television receivers, and any items that have a high loss history.

Pilferable items will be stored in a locked secure area when not in use. When issued, the primary user will sign for the item acknowledging receipt and responsibility. The primary user assumes responsibility for the surveillance and safekeeping of pilferable items and will report any changes of status, location, or use to the EMD PA or Site Property Custodian. Pilferable items will not be loaned out of the possession or control of the person to whom they are assigned unless the PA is notified.

4.12 Maintenance

Preventive maintenance of EMD property will be performed in accordance with the frequencies and procedures recommended by the original equipment manufacturer. The Contractor's maintenance engineers or authorized vendor maintenance personnel will perform hardware preventive maintenance. The site maintenance personnel will maintain records of both scheduled and completed preventive maintenance. Corrective maintenance action records are initiated by the site logistics and maintenance coordinators (LMCs) using the MWO in the ILM system, who will confirm maintenance actions taken and enter property and/or component change information as described below in the MWO upon completion of the action.

4.12.1 Warranty Management

The EMD PA will support the maintenance and warranty management functions by entering the receipt date of all property under warranty. Generally, EMD property will be procured with a one-year warranty starting at the date of receipt. Replacement repair parts and component warranties will vary dependent upon whether the manufacturer's standard warranty applies or whether an extended warranty has been purchased.

The ILS Office will manage warranty and maintenance contracts with COTS maintenance vendors. This information is used by the ILS Office to determine whether property is under warranty or contract maintenance support. As warranty/maintenance expiration dates approach, the ILS Office will determine the level of follow-on maintenance support required, select the maintenance source, and initiate actions with the COTS Procurement Office necessary to renew maintenance support coverage. Copies of maintenance support purchase orders will be provided to the EMD PA for posting to the property record.

4.12.2 Recording Maintenance Actions

DAAC Local Maintenance Coordinators document maintenance actions in Maintenance Work Orders (MWOs). Inventory changes to EMD property and spares/repair parts resulting from maintenance actions will be recorded to the property record by the EMD PA from information provided by the LMC in the completed MWO. As property components are replaced at the sites, site PC will enter the date of the maintenance action and identification (with serial number) of the replaced part into the MWO. This information will be used to update the property record as well as identify the warranty start date for the replaced component.

4.13 Subcontract and Vendor Control

In the event any subcontracts are entered into where Government property will be involved, assurance will be made that Raytheon relates proper property control requirements to all of its subcontractors. The Government PA will be advised of all subcontracts under which Government property will be provided in performance of the subcontract.

4.14 Disposition

The ILS Office will request disposition instructions for excess property located at all EMD sites from the Plant Clearance Office, DCMA using the Plant Clearance Automated Reutilization Screening System (PCARSSS) reporting system. Normally all excess property will be returned to the EDF and thus all excess processing actions will take place at the EDF under the direction of the ILS Manager and the EMD PA. Since decisions regarding disposition of the property will be based on the information provided in PCARSSS report all fields must be completed and property must be adequately described to permit reviewing organizations to determine whether the property can be reused. Once the Plant Clearance Office provides disposition instructions, the ILS Office will forward them to the site PA for execution of disposition actions.

The EMD PA removes Contractor-applied property tags prior to release of the property for disposition. The EMD PA will record disposal actions in the property database and retain all disposition documentation in its accountable record files for audit purposes until the end of the contract.

4.14.1 Government Furnished Property (GFP)

When the Government makes GFP available to the EMD contract, it will normally do so by transferring the property via GSFC 20-4, however a GSFC 20-4 may not be used in all instances. The government will determine what transfer documentation is appropriate for each situation. A GFP list is Attachment M to the EMD Contract. Upon transfer of the GFP, the EMD PA will inventory the property to verify serial, model, and ECN numbers and configurations and affix an EMD EIN tag to each item of property. If discrepancies are noted he will notify the Government transferring organization immediately and attempt to resolve the discrepancies. Once items received agree with the transfer document, the EMD PA will sign the GSFC 20-4 (if provided), enter the information into the property database, and return the original signed document to the transferring organization for forwarding to GSFC Code 235. In conjunction with the transfer of GFP the ILS Office will determine from the transferring organization maintenance/warranty terms (if any) of the property being transferred and initiate action to obtain maintenance funding for the property (if required).

4.14.2 Reporting Excess Government Property

Excess Contractor-acquired property and GFP at EMD sites will be reported by site PC to the EMD PA for disposition instructions. Excess property is defined as (1) usable property that no longer serves a useful purpose in meeting the requirements of the EMD contract, or (2) property that is unusable to the extent that repair or rehabilitation would exceed its replacement cost or 65 percent of the original acquisition cost. All DAAC excess property will be returned to the EDF for excess processing, since there is no scope for Operations Contractors at the DAACs to process excess material.

Upon receipt of reports of excess property, the EMD PA will screen EMD-wide requirements for reuse within the EMD Project. If no EMD requirement exists, the EMD PA will submit a written report describing the property as potential excess to the NASA EMD Hardware Manager for screening by the ESDIS Project, NASA/GSFC, and Code 423. If an ESDIS Project requirement

exists, the property will be transferred to the Project via GSFC Form 20-4. If no ESDIS Project requirement exists, the NASA EMD Hardware Manager will notify the EMD PA, in writing that the property is infact excess to ESDIS. The EMD PA will then report the property as excess via PCARSS to the DCMA Plant Clearance Office. DCMA will conduct screening per current DOD regulations.

Upon completion of the screening period the Plant Clearance Officer will provide disposition instructions for the entire excess inventory. Disposition instructions will be executed in a timely manner as requested by the Plant Clearance Officer. Instructions from DCMA may include shipping to another agency, selling to the highest bidder or dispose in place. All Contractor and Government property tags will be removed and markings obliterated prior to actual disposal of Government property that is sold, scrapped, or abandoned. Shipments of excess Government property will be made as directed by either the NASA EMD Hardware Manager or the Plant Clearance Officer.

While in storage at the EDF, Excess Government property will be labeled as “Excess Government Property”, segregated from all other properties, and stored in a secure area isolated from other inventory to prevent loss or unauthorized use until receipt of disposition instructions. Periodically, a physical inventory of excess Government property will be performed and records reviewed to validate inventory balances.

4.15 Property Close-out

Upon completion or termination of the EMD Contract, EMD PAs will perform a final physical inventory of Government EMD property. After completion of all DD 250s transferring EMD property to the Government, the EMD Contracts Manager will submit a final NASA 1018 to the GPA indicating that all property has been transferred from the EMD contract. Inventory adjustments, liability determinations, and other property issues will be resolved before contract closeout. The EMD Contract Manager will obtain the Contracting Officer's statement of approval of contract closeout by submitting a letter to the CO and the GPA declaring that no EMD property remains on the contract that no credits are due to the Government, and that no outstanding balances are due to EMD suppliers.

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Abbreviations and Acronyms

CDRL	Contract Data Requirements List
CI	Configuration Item
CM	Configuration Management
CM/DM	Configuration Management and Data Management
CO	Contracting Officer
COTR	Contracting Officer's Technical Representative
COTS	Commercial off-the-shelf
CSMS	Communications and Systems Management Segment
DAAC	Distributed Active Archive Center
DCMA	Defense Contract Management Agency
DID	Data Item Description
ECN	Equipment Control Number
EMD	ECS Maintenance and Development
EDC	EROS Data Center
EDF	EMD Development Facility
EDS	Electronic Data Systems
EIN	Equipment Identification Number
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
GFE	Government Furnished Equipment
GFP	Government Furnished Property
GPA	Government PA
GSFC	Goddard Space Flight Center
HW	hardware
I&T	Integration and Test
ILS	Integrated Logistics Support
IPO	Industrial Property Office

IV&V	Independent Verification and Validation
LaRC	Langley Research Center
LRU	Line Replaceable Unit
MWO	Maintenance Work Order
NASA	National Aeronautics and Space Administration
NCR	Non-Conformance Report
NEMS	NASA Equipment Management System
NSIDC	National Snow and Ice Data Center
PAIP	Performance Assurance Implementation Plan
PCARSS	Plant Clearance Automated Reutilization Screening System
PCO	Plant Clearance Office
PDO	Property Disposal Office
PI	Project Instruction
PM	preventive maintenance
PO	Purchase Order
QA	Quality Assurance
QO	Quality Office
RAYTHEON	Raytheon Systems Company
SDPS	Science Data Processing Segment
SMO	Subcontract Management Office
SOW	Statement of Work
SW	software